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| 10/804,874      | 03/19/2004  | David E. Wang        | 030499              | 7654             |

23696 7590 07/02/2007  
QUALCOMM INCORPORATED  
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| EXAMINER |
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YUN, EUGENE

|          |              |
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| ART UNIT | PAPER NUMBER |
|----------|--------------|

2618

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|-------------------|---------------|
| NOTIFICATION DATE | DELIVERY MODE |
|-------------------|---------------|

07/02/2007

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

us-docketing@qualcomm.com  
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## Office Action Summary

Application No.

10/804,874

Applicant(s)

WANG ET AL.

Examiner

Eugene Yun

Art Unit

2618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 March 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |  |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                               | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                      | 5) <input type="checkbox"/> Notice of Informal Patent Application                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____  |

## **DETAILED ACTION**

### ***Drawings***

1. The drawings are objected to because they contain illegible handwritten material. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ramesh et al. (US 6,085,103) in view of Marchetto et al. (US 5,414,734).

Referring to Claim 1, Ramesh teaches a method of testing a plurality of wireless subscriber stations, comprising:

Generating a broadcast signal (see col. 3, lines 21-25 noting that the AM signal is the broadcast signal);

creating a plurality of independently faded signals from the broadcast signal (see col. 6, lines 17-21);

Providing at least one of the faded signals to each of the wireless subscriber stations under test (see col. 4, lines 3-10).

Ramesh does not teach the use of digital signals. Marchetto teaches the use of digital signals (see col. 5, lines 57-63). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teachings of Marchetto to said method of Ramesh in order to enable the use of higher data rates.

Claim 25 has similar limitations as Claim 1.

Referring to Claim 13, Ramesh teaches an apparatus to test a plurality of wireless subscriber station, comprising:

A base station simulator configured to generate a broadcast signal (see col. 3, lines 21-25 noting that the AM signal is the broadcast signal);

A processor configured to create a plurality of independently faded signals from the broadcast signal (see col. 6, lines 17-21); and

An interface configured to provide at least one of the faded signals to each of the wireless subscriber stations under test (see col. 4, lines 3-10).

Ramesh does not teach the use of a digital processor. Marchetto teaches the use of a digital processor (see col. 5, lines 57-63). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teachings of Marchetto to said device of Ramesh in order to enable the use of higher data rates.

Referring to Claim 2, Marchetto also teaches monitoring each of the subscriber stations under test to determine whether it can recover the broadcast signal from its respective said at least one of the faded signals (see col. 7, lines 16-21).

Referring to Claims 3 and 14, Ramesh also teaches receiving a signal from each of the wireless subscriber stations under test, digitally creating at least one independently faded signal from each of the received signals, and generating a second broadcast signal for the wireless subscriber stations under test based on said at least one independently faded signal created from each of the received signals (see col. 6, lines 17-21).

Referring to Claims 4 and 16, Ramesh also teaches converting each of the digitally created faded signals to an analog faded signal at a carrier frequency before providing the faded signals to their respective subscriber stations (see col. 4, lines 3-10).

Referring to Claims 5 and 17, Ramesh also teaches one of the faded signals provided to each of the wireless subscriber stations comprises two faded signals, each

of the two faded signals representing a different faded signal path (see col. 4, lines 23-30).

Referring to Claim 6, Marchetto also teaches each of the faded signals digitally created by generating multiple copies of the broadcast signal, independently scaling each of the multiple copies as a function of one or more parameters relating to a fading model, and combining the result (see col. 7, lines 49-67).

Referring to Claim 7, Marchetto also teaches applying a doppler frequency shift to each of the multiple copies (see col. 4, lines 18-20).

Referring to Claim 8, Marchetto also teaches applying a delay to each of the multiple copies (see col. 7, lines 40-48).

Referring to Claim 9, Ramesh also teaches the broadcast signal comprising video (see col. 3, lines 23-24).

Referring to Claims 10 and 23, Marchetto also teaches the broadcast signal comprising a spread spectrum signal (see col. 9, lines 27-47).

Referring to Claim 11, Marchetto also teaches monitoring a digital communications signal from each of the subscriber stations under test (see col. 5, lines 57-63).

Referring to Claims 12 and 24, Marchetto also teaches the digital communications signal from each of the subscriber stations under test monitored by digitally creating two independently faded signals from each of the subscriber stations (see col. 7, lines 3-13), combining a first one of the two independently faded signals from each of the subscriber stations under test, combining a second one of the two

independently faded signals from each of the subscriber stations under test (see col. 7, lines 13-16), and attempting to recover the digital communications signal from each of the subscriber stations under test from the first and second ones of the combined independently faded signals (see col. 7, lines 16-21).

Referring to Claim 15, Marchetto also teaches a plurality of subscriber station test connections (see col. 7, lines 16-21).

Referring to Claim 18, Marchetto also teaches a plurality of processing units each being configured to generate one of the faded signals (see col. 7, lines 16-21).

Referring to Claim 19, Marchetto also teaches a plurality of processing elements each being configured to independently scale the broadcast signal as a function of one or more parameters relating to a fading model, and a combiner configured to combine the independently scaled broadcast signals (see col. 7, lines 49-67).

Referring to Claim 20, Marchetto also teaches applying a doppler frequency shift to the broadcast signal (see col. 4, lines 18-20).

Referring to Claim 21, Marchetto also teaches applying a delay to the broadcast signal (see col. 7, lines 40-48).


Referring to Claim 22, Ramesh also teaches the broadcast signal comprising video (see col. 3, lines 23-24).

### ***Conclusion***


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eugene Yun whose telephone number is (571) 272-7860. The examiner can normally be reached on 9:00am-6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew D. Anderson can be reached on (571)272-4177. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Eugene Yun  
Examiner  
Art Unit 2618

EY

  
MATTHEW ANDERSON  
SUPERVISORY PATENT EXAMINER